

REMARKS

This application has been carefully reviewed in light of the Office Action dated March 20, 2008. Claims 1 to 31 are pending in the application, of which Claims 1, 11, 16, 25, 30 and 31 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 3, 5 to 12, 14 to 17, 19 to 26 and 28 to 31 are rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,956,453 (Yaegashi) in view of U.S. Patent No. 5,532,833 (Hong). Claims 4, 13, 18 and 27 are rejected under 35 U.S.C. § 103(a) over Yaegashi and Hong in view of U.S. Patent No. 6,348,929 (Acharya). Reconsideration and withdrawal of these rejections are respectfully requested.

Turning to specific claim language, Claim 1 is directed to an image processing apparatus which includes a storage device that stores scene information including, at least, data for at least one representative frame extracted from a scene, data for an interval of the scene, and data for a significance level of the scene of each of a plurality of scenes included in a moving picture to be played back, wherein each of the plurality of scenes is mutually disjoint and has no inclusion relationship with the other scenes so that the plurality of scenes do not construct a tree structure; a display device that extracts, on the basis of an externally designated significance level, images of the representative frames of the plurality of scenes having significance levels equal to or higher than the externally designated significance level from the storage device, and concurrently displays the extracted images chronologically; a selection device that receives a selection of one of the concurrently-displayed images of the representative frames on the basis of an external designation; and a playback device that plays back the scenes corresponding to the images of the representative frames selected by the selection device.

Claim 11 is directed to an image processing apparatus. The image processing apparatus comprises a storage device that stores scene information including, at least, data for at least one representative frame extracted from a scene, and data for a significance level of the scene of each of a plurality of scenes included in a moving picture to be played back, wherein each of the plurality of scenes is mutually disjoint and has no inclusion relationship with the other scenes so that the plurality of scenes do not construct a tree structure; a display device that extracts, on the basis of an externally designated significance level, images of the representative frames of the plurality of scenes having significance levels greater than or equal to the externally designated significance level from the storage device, and concurrently displays the extracted images chronologically; and a selection device that receives a selection of one of the concurrently-displayed representative frames on the basis of an external designation.

Applicants respectfully submit that the cited references, namely Yaegashi and Hong, considered either alone or in combination, fail to disclose or suggest all of the features of the image processing apparatuses of Claims 1 and 11. In particular, the cited references, either alone or in combination, fail to disclose or suggest at least the features of storing in a storage device scene information of a plurality of scenes, including the significance level of each scene, each of which is mutually disjoint and has no inclusion relationship with the other scenes, so that the plurality of scenes do not construct a tree structure and extracting, on the basis of an external designation of the significance level, images of representative frames of the plurality of scenes having a significance level externally designated, and significance levels higher than that, from the storage device to concurrently display the extracted images chronologically.

In the Office Action, it is acknowledged that Yaegashi fails to disclose a plurality of scenes that are mutually disjoint and that a display device extracts images, on the basis of the designated significance level, from the storage device and concurrently displays the extracted images chronologically. However, the Office Action relies on Hong as disclosing such a feature. Applicants respectfully disagree with such a characterization of the disclosures of Hong.

Applicants submit that, while Hong does disclose retrieval of a frame sequence to display a representative image thereof (see Hong, Abstract; column 3, lines 29 to 31; column 4, lines 1 to 4; column 5, lines 2 to 45; and column 7, lines 25 to 45) and then discloses that the frame sequences are edited to create a logical frame structure (a tree structure) in which an upper node scene embraces lower node scenes. Referring to Fig.1A of Hong, scenes A11 and A12 are independent of each other, but scene A1 includes the scenes A11 and A12. Similarly, the scene A1 is included in a scene A. In this manner, a tree structure is created so that the whole motion video image (root node R) includes upper node scenes A, B and C. That is, there are provided the following inclusion relationships: $R=A+B+C$, $A=A1+A2+A3$, and $A1=A11+A12$. This is different from the plurality of scenes as featured in Claim 1. That is, the plurality of scenes of the present invention are arranged such that data reflecting the significance level of each scene is provided for a plurality of scenes, and each of the plurality of scenes is mutually disjoint and has no inclusion relationship with the other scenes, so that the plurality of scenes do not construct a tree structure. According to this feature of the present invention, even if a plurality of significance levels are designated, repeatedly reproducing the same scene can be avoided since scenes have no inclusion relationship, whereas if a plurality of significance levels are designated and used to extract the scenes that are in a tree structure as disclosed in Hong, the same scene

may be repeatedly reproduced due to the scenes' inclusion relationships inherent in the tree structure.

In light of the deficiencies of Yaegashi and Hong as discussed above, Applicants submit that amended independent Claims 1 and 11 are now in condition for allowance and respectfully request same.

Independent Claims 16 and 25 are corresponding method claims of independent Claims 1 and 11, respectively, and have been now amended in the same manner as the amended independent Claims 1 and 11. Independent Claims 30 and 31 are corresponding medium claims of independent Claims 1 and 11, respectively, and have been also amended in the same manner as the amended independent claims 1 and 11. Accordingly, Applicants submit that Claims 16, 25, 30 and 31 are also now in condition for allowance and respectfully request same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each claim on its own merits is respectfully requested.

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In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

CONCLUSION

The Director is authorized to charge the requisite \$120.00 fee for a one-month extension of time fee to Deposit Account No. 50-3939. The Director is further authorized to charge any deficiency in this fee, or to credit any overpayment thereof, to Deposit Account No. 06-1205.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,

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